CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512

June 28, 2000

Mr. Doug Wheeler
4300 Railroad Ave.
Pittsburg, CA 94565

Dear Mr. Wheeler:

HANFORD ENERGY PARK (00-SPPE-1) DATA REQUESTS NUMBERS 1 THROUGH˚17

Pursuant to Title 20, California Code of Regulations, section 1716, the California Energy Commission (Energy Commission) staff requests that the GWF Power Systems Company supply the information specified in the enclosed data requests (Data Requests 1 through 17).

The subject areas addressed in these data requests are efficiency, geology and paleontological resources, land use, traffic and transportation, and transmission system engineering. Other data requests will be submitted early in July. The information requested is necessary to: 1) understand the project, 2) assess whether the project will result in significant environmental effects, and 3) assess project alternatives and mitigation measures.

Written responses to the enclosed data requests are due to the Energy Commission by July 27, 1999 or at such later date as may be agreed upon by the Energy Commission staff and the applicant. A publicly noticed workshop is scheduled in July, in Hanford to discuss these data requests and to have staff available to answer questions regarding the data requests and the level of detail required to answer the requests satisfactorily.

If you are unable to provide the information requested in the data requests or object to providing it, you must, within 15 days of receiving these requests, send a written notice of your inability or objection(s) to both Chairman William J. Keese, Presiding Member of the Committee for this proceeding, and me. The notification must also contain the reasons for not providing the information and the grounds for any objections (see Title 20, California Code of Regulations section 1716 (e)).

If you have any questions regarding the enclosed data requests, please call me at (916) 653-1614.

Sincerely,

Richard Buell
Siting Project Manager

Enclosure
cc: Proof of Service 00-SPPE-1
David Stein

RKB:rkb
DATAREQ1.doc

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HANFORD ENERGY PARK (00-SPPE-1)
DATA REQUESTS

Technical Area: Efficiency
Author: Steve Baker

BACKGROUND

Staff needs to verify two issues: 1) whether the net generating capacity of the project is under 100 MW, in order for the project to qualify for application as an SPPE; and 2) whether the project represents a wasteful or inefficient use of energy. The net project electrical efficiency described in the Small Power Plant Exemption (SPPE) application (36.68 percent lower heating value {LHV}) appears quite low for a combined cycle/cogeneration project utilizing currently available combustion turbine technology. This low electrical efficiency could be explained by high levels of cogeneration steam export. When staff calculates total plant energy efficiency assuming maximum steam export, however, total plant efficiency is still only 40 percent LHV. A much higher figure would be expected.

DATA REQUEST

1. Please provide a list of individual auxiliary electrical loads, including step-up and step-down transformer losses. Provide the facility s operating minimum auxiliary electrical loads corresponding to the system generating capacity at the project site for the annual average ambient site design conditions. Describe the nature of each load, e.g., discretionary loads (can be shut off without curtailing plant electrical generation) and batch-type operations (loads that can be scheduled for non-peak hours). For motor-driven loads, provide actual power loads, rather than motor ratings.

2. Staff calculates the maximum electrical output of a cogeneration power plant with the cogeneration export steam shut off; this yields the maximum electric generation. Please provide the maximum electrical output that can be achieved under these conditions (annual average ambient conditions, inlet air cooler operating, gas turbine generator at maximum output, no export steam, duct burner at maximum, or as high as necessary to maximize steam turbine generator output).

BACKGROUND

Staff must compare the efficiency of the project to feasible alternatives, in order to conclude that the project does not waste energy. Efficiency of a cogeneration project such as this is calculated by dividing total (fuel) energy input by total energy output (net electrical energy plus net cogeneration heat use). The net project electrical efficiency described in the application (36.68 percent LHV) appears quite low for a project utilizing this technology. This low electrical efficiency could be explained by high levels of cogeneration steam export. When staff calculates total plant energy efficiency assuming maximum steam export, however, total plant efficiency is still only 40 percent LHV. A much higher figure would be expected.

DATA REQUEST

3. Please provide calculations showing plant electrical efficiency, and plant cogeneration (electric plus heat) efficiency, at annual average ambient conditions and maximum output.

Technical Area: Geology and Paleontology
Author: Robert Anderson

BACKGROUND

The applicant s paleontologist has indicated that vertebrate fossil fragments have been recovered from the proposed power plant expansion site.

DATA REQUEST

4. Please submit to the California Energy Commission a copy of the paleontological resources location map showing the location of where the vertebrate fossil fragment recovered by the applicant s paleontologist were recovered. The map scale shall be 1:24,000. If confidentiality is appropriate, the submittal should be made in accordance with the provisions of Title 20 California Code of Regulations section 2501 et seq.

BACKGROUND

The SPPE geology section refers to either the uniform building code or universal building code (there is no such code).

DATA REQUEST

5. Please clarify whether the applicant proposes to comply with appropriate sections of the California Building Code.

Technical Area: Land Use
Technical Staff: Amanda Stennick/Aspen contractor

BACKGROUND

The applicant states in the SPPE that land use entitlements from the City of Hanford and from Kings County are required for the project to proceed. In addition, the applicant states in the SPPE that ministerial permits from the City of Hanford and Kings County will be required for work performed in the public utility easement for the transmission line. In order to adequately assess land use conformity and consistency with local general plans, zoning codes, and land division ordinances, please provide the following:

DATA REQUESTS

6. Copy of the parcel map waiver from the City of Hanford.

7. Copy of the parcel map application from Kings County Planning Department for creation of the one-acre parcel for switchyard in the AG-20 zone.

8. Conditions of approval from Kings County contained in the Conditional Use Permit for the substation in the AG-20 zone.

9. Copies of encroachment permits from City of Hanford and Kings County for work proposed in the public utility easement.

Technical Area: Noise
Author: Steve Baker

BACKGROUND

Staff must understand the ambient noise regime at the project location in order to evaluate the likelihood of noise impacts due to the project.

DATA REQUEST

10. In the application, Table 8.5-2 shows the L_{90} at location LT-1 as 46 dBA, and Table 8.5-3 shows this figure as 49 dBA, when a northwest wind was blowing. Discussion in section 8.5.2.2 describes how the existing GWF facility was exceeding fenceline noise limits, and will be remediated. It is not clear whether the increase in L_{90} value at this site was due entirely to wind effects, or in part to a change in the noise level from the GWF facility. If the latter, will future changes to the GWF facility further reduce this plant s noise emissions? If so, how will this affect the ambient L_{90} at location LT-1?

BACKGROUND

Staff s criteria for adverse noise impacts include a 5 dB increase above ambient background, or L_{90}, noise levels, as well as compliance with LORS.

DATA REQUEST

11. In the application, Table 8.5-6 shows predicted noise levels at sensitive receptors after the plant is in operation. These numbers are calculated using L_{dn} values, not L_{90} as is staff s norm. Please resubmit this table with calculations based on plant noise level additions to the ambient L_{90} levels.

BACKGROUND

Noise from steam blows can be deemed a significant adverse impact on nearby sensitive receptors.

DATA REQUEST

12. In order to minimize impacts from steam blows, the applicant proposes that they be limited to certain daytime hours . (Application, section 8.5.3) In order to allow staff to evaluate the effectiveness of this mitigation measure, please specify the hours to which steam blows will be limited.

Technical Area: Traffic and Transportation
Author: James Fore

BACKGROUND

This information is needed by staff to provide a complete traffic analysis of possible impacts that the power plant will have on public safety, the local and state roadway system and to determine what mitigation measures should be required during construction.

DATA REQUEST

13. The SPPE Table 8.10-7 used the peak workforce count in estimating the increase in roadway traffic. To evaluate the impact that plant construction will have on the local roadways, vehicle trips need to be used. Please correct the table to reflect vehicle trips and make the necessary adjustments for the projected level of service.

14. The SPPE Table 8.10-2 percent truck traffic for State Route 99 indicates four percent at R6.43 and R38.90. These percentages do not correlate with the indicated Annual Average Daily Truck Traffic and Annual Average Daily Traffic shown in the table. Please correct the percent of truck traffic or the average traffic volumes used to calculate this value.

15. The SPPE reviews the level of service for roadways in the vicinity of the project but does not indicate the impact of construction on major intersections in the area. In general the greatest capacity constraints occur at signalized intersection. Staff needs to determine the effects and impact that construction traffic will have at these intersections. Please provide the following traffic information:

    a. Discussion of the key intersections that will be impacted by the project.

    b. Discussion of the current LOS for these intersections.

    c. Discussion of changes in the LOS for the intersections during construction of the plant and the associated linears.

16. The SPPE doesn t address any road features that could affect public safety. Are there situations along the roadways affected, that could impact public safety, such as intersections were the current signals would not be adequate? If such situations exist, please identify them and the mitigation measures the applicant proposes, if appropriate.

Technical Area: **Transmission System Engineering**
Author: Linda Davis

BACKGROUND

Staff must analyze the transmission and interconnection alternatives for the Hanford Energy Park Cogeneration Project and determine the whole of the project to assure conformance with CEQA. The Appendix A to the SPPE (Detailed Facilities Study) presents summary tables for power flow results.

DATA REQUEST

17. Please provide power flow diagrams which demonstrate conformance or nonconformance with utility reliability and planning criteria and planning criteria at the time the facility is expected to be placed in operation. Diagrams should be provided for the normal cases and contingency cases where criteria violations are indicated.